

ECONOMIC IMPACT EVALUATION OF OSELTAMIVIR ADJUSTMENT CRITERIA IN RENAL IMPAIRMENT

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OBJECTIVES

To evaluate the economic impact of different adjustment criteria of oseltamivir in patients with renal impairment.

STUDY DESIGN

Observational retrospective study of patients treated with oseltamivir during December 1st 2014-March 31st 2015.

All patients hospitalized and treated with oseltamivir were included except those in hemodialysis treatment. Data collected were: anthropometric data, glomerular filtrate (FG).

Economic evaluation was realized with the following official information: Tamiflu 75mg/10 capsules 31.57€ and Tamiflu 30mg/10 capsules 17.39€.

Renal impairment posology adjustment criteria was obtained from different data bases: Technical data of Tamiflu® (TD), UptoDate®, Micromedex®, Sandford guide to antimicrobial therapy 2013® (Sandford), Guía terapéutica antimicrobiana Mensa 2015® (Mensa) y Health Ministry Protocol (HMP).

Pill consumption was estimated taking into account our population characteristics and the different adjustment renal impairment criteria.

RESULTS

A total of 31 patients were treated, 100% were adults, with a mean age of 66.23 (64.74-67.71) years, 45.2% were women. The mean treatment duration was 5.45 (4.4-5.0) days.

Population stratification by renal function is showed in Figure 1.

Two main adjustment criteria groups were founded, as showed in Table 1.

Both criteria are different for FG<60ml/min recommendation, originating different costs in each case (Table 2).

Figure 1. Population stratification by renal function.

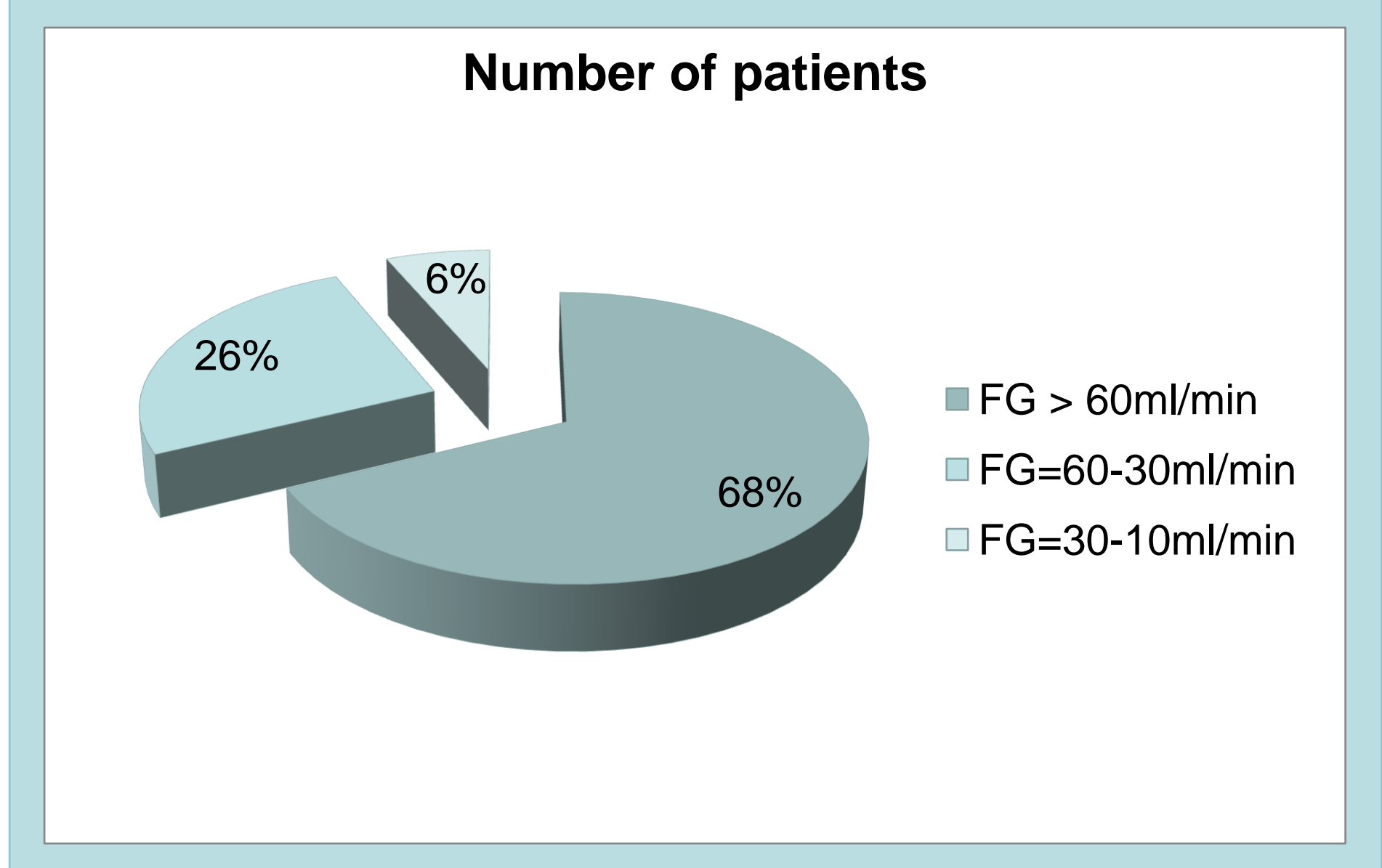


Table 1: Renal impairment adjustment criterias.

		FG > 60 ml/min	FG=60-30 ml/min	FG=30-10 ml/min
CRITERIA 1	Technical Data	75 mg/12h	30 mg/12h	30 mg/24h
	Micromedex			
	UptoDate			
CRITERIA 2	HMP	75 mg/12h	75 mg/12h	75 mg/24h
	Mensa			
	Sandford			

Table 2: Five day treatment Cost (PVP)/patient.

	FG > 60 ml/min	FG=60-30 ml/min	FG=30-10 ml/min
CRITERIA 1	31.57 €	17.39 €	8.6 €
CRITERIA 2	31.57 €	31.57 €	15.8€

DISCUSSION

There were 8 patients with FG=60ml/min-30ml/min, following criteria 1 the expense were 139.12€ for a 5 days treatment, following adjustment 2: 252.56€. Which supposes a difference of 113.44€ (44.9% more expensive).

Two patients had FG=30-10ml/min, following criteria 1 the expense were 17.3€ for a 5 days treatment, following criteria 2: 31.57€; which supposes a difference of 14.18€ (44.9% more expensive).

CONCLUSION

Posology adjustment following criteria 1 supposes a 45% of savings. This recommendation was offered from Hospital Pharmacy department as it follows TD and is the most cost favorable.

No Clinical Trials were founded to justify adjustment criteria 2.

It is necessary to know the influence of both criteria over treatment and stay duration to obtain a better cost effectivity evaluation.